

2009-2010 Influenza Epidemiology and Surveillance Weekly Status Report for Kansas

Week Ending March 20, 2010

Kansas Department of Health and Environment Bureau of Surveillance and Epidemiology 1000 SW Jackson, Suite 210 Topeka, KS 66612 Epi Hotline: (877) 427-7317 epihotline@kdheks.gov

www.kdheks.gov/epi

Table of Contents

Executive Summary	4,5
Outpatient Influenza-like Illness (ILI)	
Percentage of Patients with ILI seen at Kansas ILINet Clinics, by Region	6
Map of ILINet Clinics and Regions	6
Percentage of Patients with ILI seen at Kansas ILINet Clinics, by Site	7
Percentage of Visits for ILI Reported by ILINet Sites, Kansas 2007-08, 2008-09, and 2009-10 Influenza Seasons	8
Percentage of Visits for ILI Reported by ILINet Sites, by Region for 2009-10 Influenza Season	9
Hospital Admissions for Pneumonia or Influenza	
Rate of Hospital Admissions due to Pneumonia or Influenza per 100 Bed Days by Preparedness Region	10
Rate of Hospital Admissions for Pneumonia or Influenza per 100 Bed Days by EMSystem Hospital	11
Number of Admissions for Pneumonia or Influenza, by Age Group	12
Rate of Hospitalizations due to Pneumonia or Influenza per 100 Bed-Days	12
Rate of Hospitalizations due to Pneumonia or Influenza per 100 Bed-Days by Preparedness Region	13
Mortality Due to Pneumonia or Influenza	
Pneumonia or Influenza Deaths by Date of Report and Age Group	14
Cumulative Number of Pneumonia or Influenza Deaths Reported by Age Group	14
Self-Reported Influenza-like Illness	
Percentage of Adults Who Reported ILI in Previous Two Weeks	15
Percentage of Adults and Children Who Reported ILI in Previous Four Weeks	15
Percentage of Households with One or More Persons with ILI in Previous Four Weeks	16

Table of Contents (continued)

Sci	1001 Absenteeism Surveillance	
	Percentage of Elementary Schools Reporting 10% or Greater Absenteeism by Preparedness Region and by County	17
	Percentage of Middle Schools Reporting 10% or Greater Absenteeism by Preparedness Region and by County	18
	Percentage of High Schools Reporting 10% or Greater Absenteeism by Preparedness Region and by County	19
	Percentage of Schools Reporting 10% or Greater Absenteeism by School Category	20
	Percentage of Schools Reporting 10% or Greater Absenteeism by Preparedness Region and School Category	2′
	Percentage of Schools Reporting 10% or Greater Absenteeism by Category and County	22, 23
	ooratory Testing at Kansas Health and Environmental Laboratories IEL)	
	Influenza Tests Conducted by Week at KHEL	24
	Influenza Strains Detected at KHEL	24
	Influenza Specimens Tested at KHEL by Hospitalization Status	25
Des	scriptive Epidemiology of KHEL-Confirmed H1N1 Cases	
	2009 H1N1-Influenza A Virus Transmission Level by County	26
	Characteristics of Laboratory Confirmed Cases	27
	Age Distribution of Laboratory Confirmed Cases	27
Po	oulation Vaccinated Against 2009 H1N1 Influenza A Virus	
	Cumulative Population Vaccinated Against 2009 H1N1, State of Kansas	28
	Cumulative Population Vaccinated Against 2009 H1N1, by Region and Week	29
Ted	chnical Notes	30, 31
Dat	a Quality Indicators	32
Ap	pendix	
	Number and County Location of ILINet Clinic Sites	33
	List of Hospitals Included in Hospital Surveillance Section for Current	34

Executive Summary

D. Charles Hunt, MPH, State Epidemiologist and Director Bureau of Surveillance and Epidemiology Kansas Department of Health and Environment

Overview

Overall influenza activity throughout the state remains low. Indicators for influenza among both outpatients and inpatients decreased compared to the previous week, and the number of influenza and pneumonia deaths recorded was the lowest seen since the influenza surveillance season began on October 4, 2009.

It is too early to determine if these decreases in influenza activity are temporary, or if they signal the end of this influenza season. We will continue to monitor all influenza surveillance data to assess any changes or trends.

Outpatient Visits for Influenza-like Illness (ILINet)

Fifty-one (73%) of the 70 ILINet sites in Kansas reported data for the week ending March 20th. The statewide percentage of patients seeking care for ILI at these clinics decreased from 1.4% to 1.0% compared to the previous week.

Nineteen sites (27%) did not submit ILI data by the reporting deadline; the regional and statewide percentages may rise or fall after these sites submit data. Nationally, the proportion of outpatient visits for influenza-like illness (ILI) was 1.8% for the week ending March 13th.

Hospital Admissions for Pneumonia or Influenza (EMSystems)

For the week ending March 20th, 74 (56%) of 132 hospitals reported 306 patients admitted for pneumonia or influenza. Fifty-three (17%) of these admissions were among children less than 5 years of age—this rate was greater than 20% during the previous eight weeks.

The statewide rate of hospital admissions per 100 bed-days decreased slightly, from 0.73 last week to 0.69 this week. The northwest, southwest and north central regions reported an increase in the rate of hospital admissions per 100 bed-days, while the remaining regions reported a decrease.

Mortality Due to Pneumonia or Influenza

Twenty-seven (6%) of the 484 deaths reported to KDHE during the week ending March 20th were due to pneumonia or influenza. This is the lowest recorded proportion of deaths due to pneumonia or influenza since the influenza surveillance season began on October 4, 2009. Twenty-five (93%) of the pneumonia or influenza deaths for the week ending March 20th occurred among individuals aged 65 years and older.

Executive Summary (continued)

Self-reported Influenza-like Illness

No new data were available for this week's surveillance report.

School Absenteeism

No new data were available for this week's surveillance report. The majority of Kansas schools were out of session for spring break.

Laboratory-based Surveillance

During the week ending March 20th, 45 specimens were tested at KDHE Laboratories (KHEL). Of these, 9 (20%) were positive for influenza A (2009 H1N1). The percentage of specimens positive for the pandemic strain is similar to the previous two weeks. No other influenza A viruses or influenza B viruses were detected

Since October 4th, 2009, a total of 2,618 specimens have been submitted to KHEL for testing. Of these, 955 (36%) have tested positive for influenza A (2009 H1N1).

Population Vaccinated Against 2009 H1N1 Influenza A Virus

As of March 20th, 579,778 doses of 2009 H1N1 vaccine were reported to have been administered to Kansans, which comprises 20.7% of the state's population. The charts on page 29 show the cumulative number of

Individuals vaccinated at the end of each week by region as well as the cumulative percentage of each region's population that has been immunized. The northeast (20%), south central (22%), southwest (24%), and northwest (25%) regions of the state have the highest proportion of their population vaccinated against 2009 H1N1 Influenza A virus.

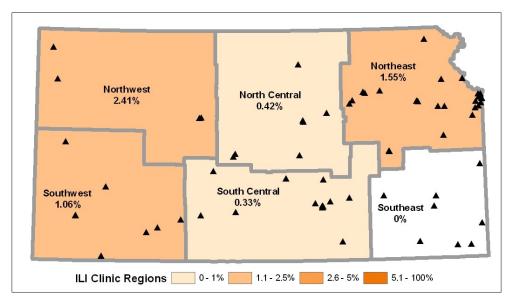
It is important to note that numbers of people vaccinated are reported by the county in which they received the vaccination; therefore, cumulative numbers and rates may be skewed slightly, as individuals are divided into regions based on the site of vaccination. These charts do not account for individuals who were vaccinated in a region other than the region in which they reside. Vaccine administration data may change each week because of data submitted after the reporting deadline or because of corrections made to previously submitted data.

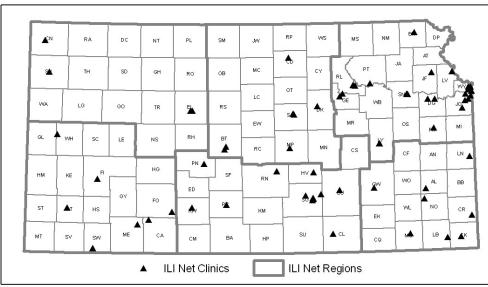
Outpatient Influenza-like Illness (Surveillance Conducted via ILINet) Week ending March 20, 2010



Percentage of Visits for Influenza-like Illness (ILI) Reported by ILINet Sites, by Region March 14, 2010 - March 20, 2010





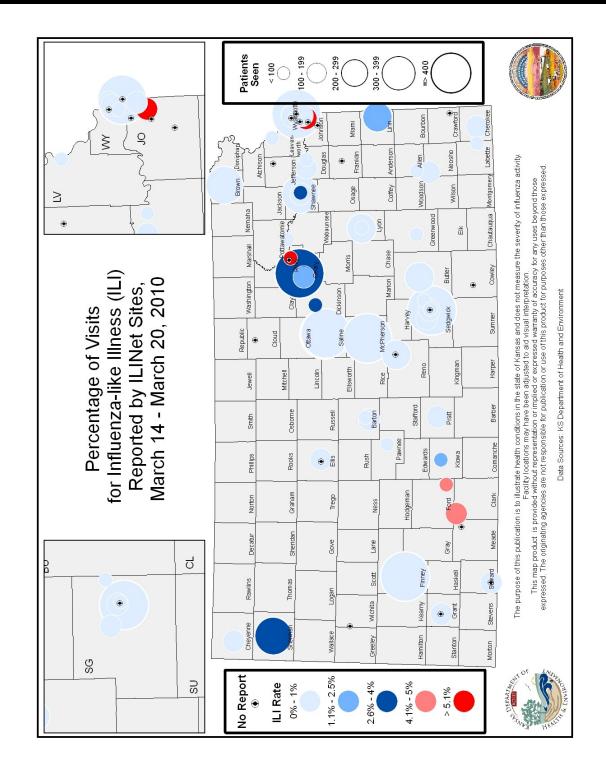


The purpose of this publication is to illustrate health conditions in the state of Kansas and does not measure the severity of influenza activity.

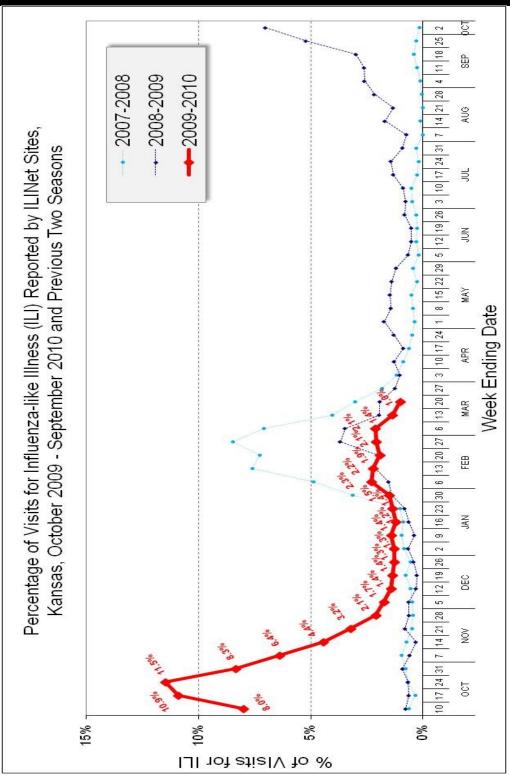
This map product is provided without representation or implied or expressed warranty of accuracy for any uses beyond those expressed. The originating agencies are not responsible for publication or use of this product for purposes other than those expressed.

Data Sources: KS Department of Health and Environment

Outpatient Influenza-like Illness (Surveillance Conducted via ILINet) Week ending March 20, 2010

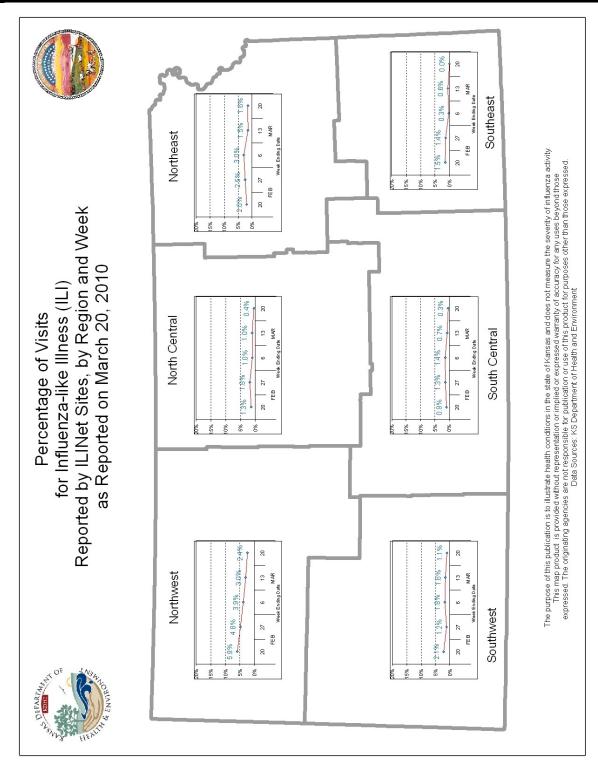


Outpatient Influenza-like Illness (Surveillance Conducted via ILINet) Week ending March 20, 2010



was unique to the 2008-2009 season; data for that week has been excluded from the chart. ILINet sites vary in location, numober 10, 2009. Week 40 of 2008 ended October 4, 2008, and week 40 of 2007 ended October 6, 2007, and so on. Week 53 lears are plotted according to week number corresponding to the 2009-2010 week ending date. Week 40 of 2009 ended Oc-The X-axis represents the week ending dates for the 2009-2010 surveillance year. Data from the previous two surveillance ber, and type (student health, family practice, etc.) each season as new sites are enrolled and former sites are deactivated.

Outpatient Influenza-like Illness (Surveillance Conducted via ILINet) Week ending March 20, 2010

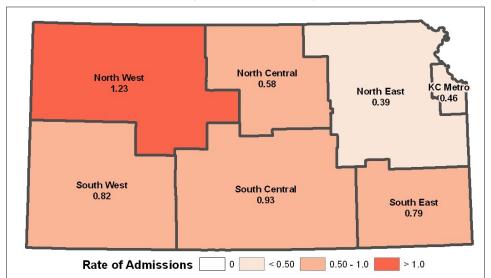


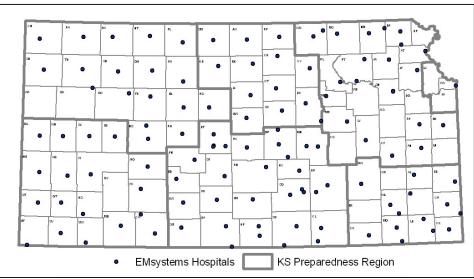
Hospital Admissions (Surveillance Conducted via EMSystems) Week ending March 20, 2010



Rate of Hospitalizations due to Pneumonia or Influenza per 100 Bed-Days* by Preparedness Region, March 14, 2010 - March 20, 2010

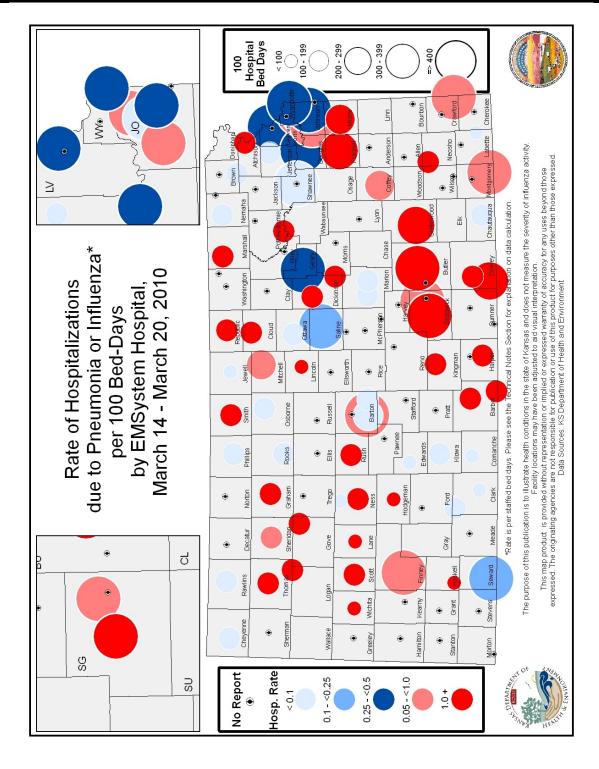




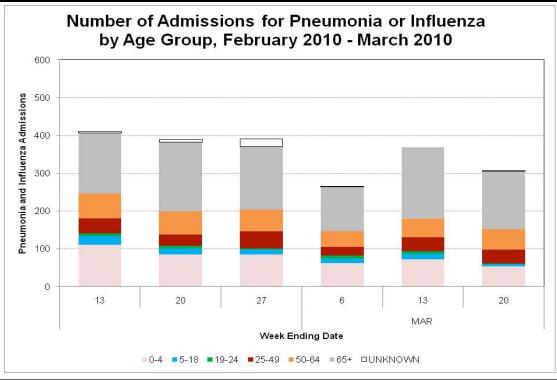


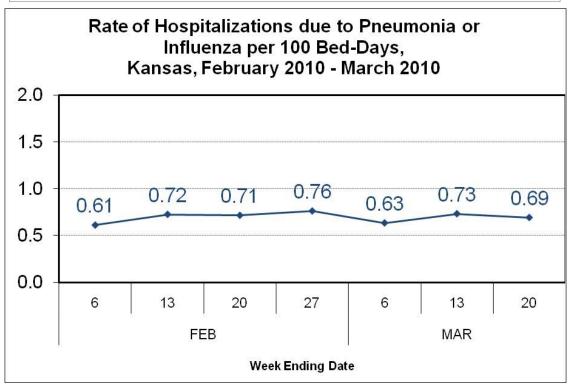
*Rate is per staffed bed days. Please see the Technical Notes Section for explanation on data calculation

Hospital Admissions (Surveillance Conducted via EMSystems) Week ending March 20, 2010

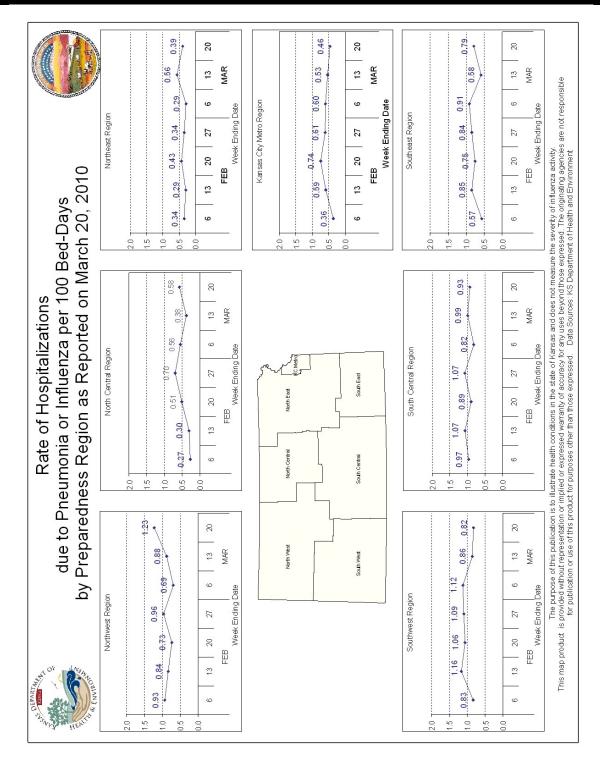


Hospital Admissions (Surveillance Conducted via EMSystems) Week ending March 20, 2010

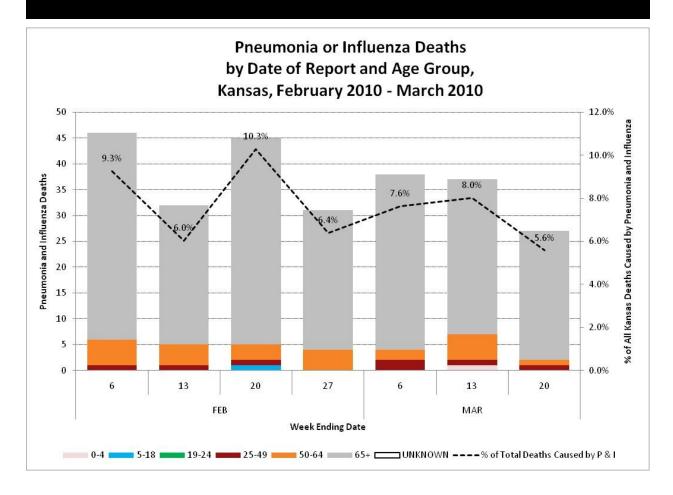




Hospital Admissions (Surveillance Conducted via EMSystems) Week ending March 20, 2010



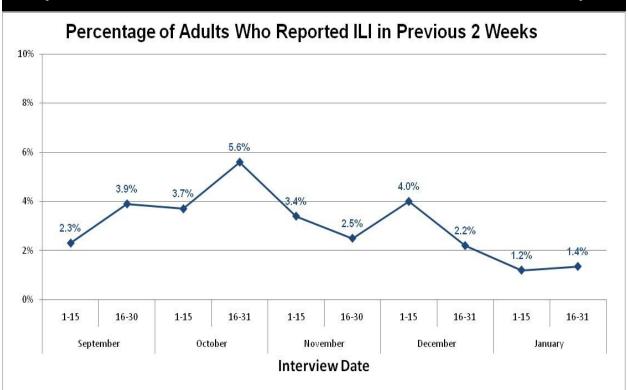
Mortality Due to Pneumonia or Influenza (Surveillance Conducted via KDHE Vital Statistics)

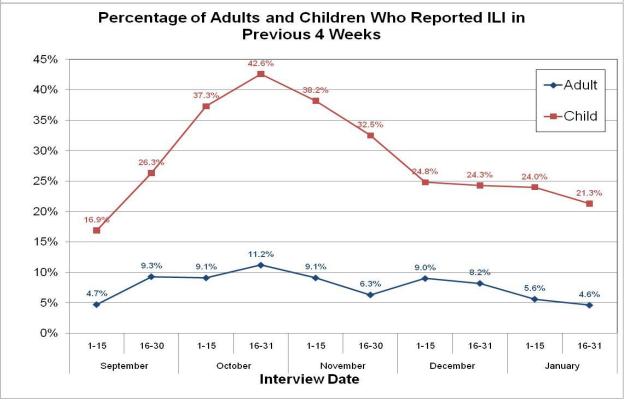


Cumulative Number of Pneumonia or Influenza Deaths Reported by
Age Group, September 26, 2009—March 20, 2010

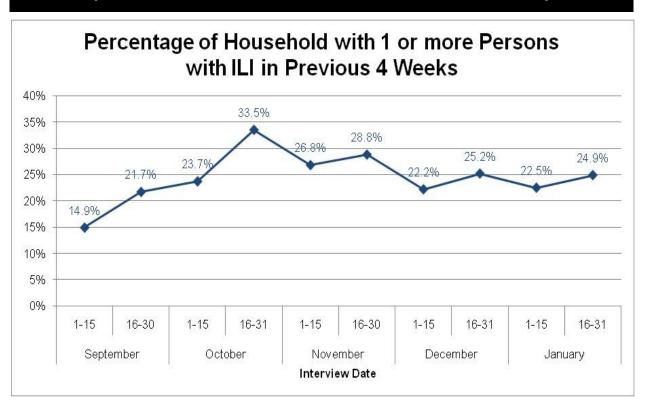
0-4	5-18	19-24	25-49	50-64	65+	Unknown	Total
1	1	1	40	86	791	1	921

Self-Reported Influenza-like Illness (Surveillance Conducted via KDHE BRFSS)





Self-Reported Influenza-like Illness (Surveillance Conducted via BRFSS)

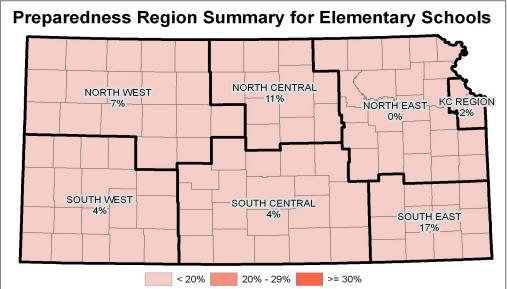


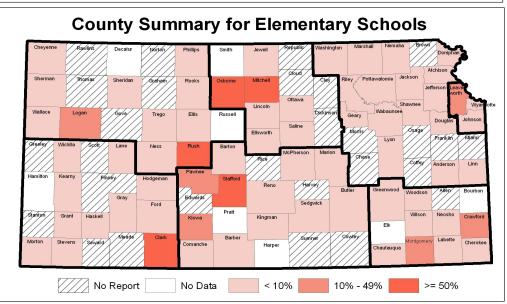
School Absenteeism (Surveillance Conducted via Health Departments) Week ending March 12, 2010



Percentage of Schools Reporting 10% or Greater Absenteeism March 8 - March 12, 2010





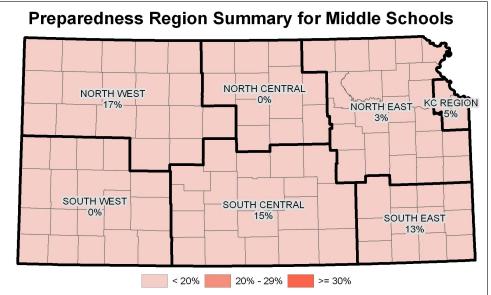


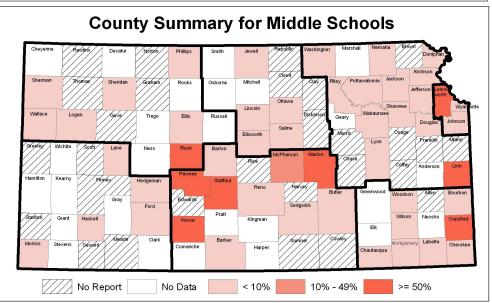
School Absenteeism (Surveillance Conducted via Health Departments) Week ending March 12, 2010



Percentage of Schools Reporting 10% or Greater Absenteeism March 8 - March 12, 2010





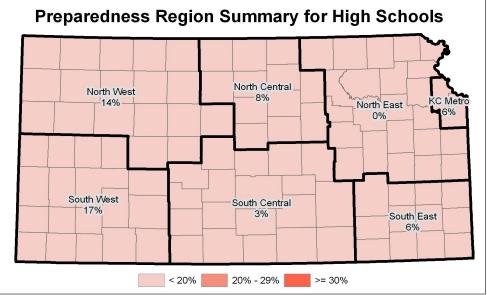


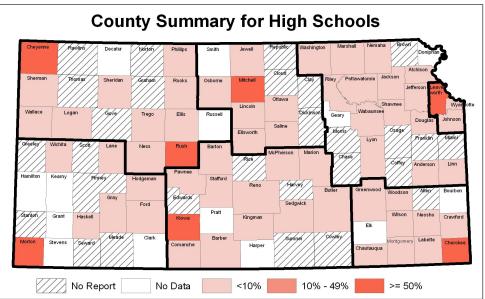
School Absenteeism (Surveillance Conducted via Health Departments) Week ending March 12, 2010



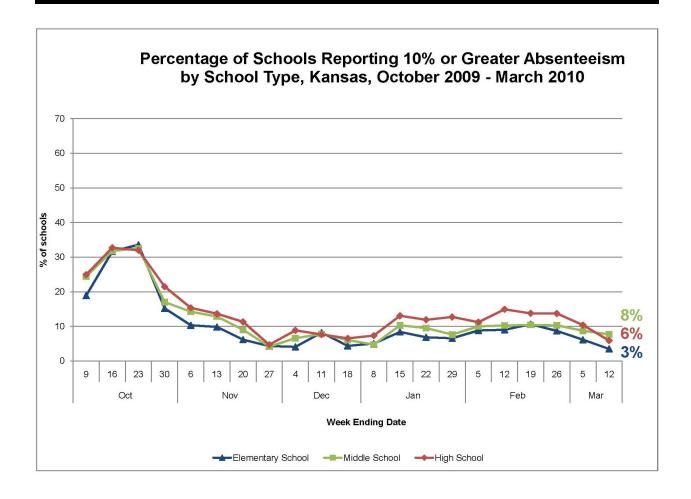
Percentage of Schools Reporting 10% or Greater Absenteeism March 8 - March 12, 2010



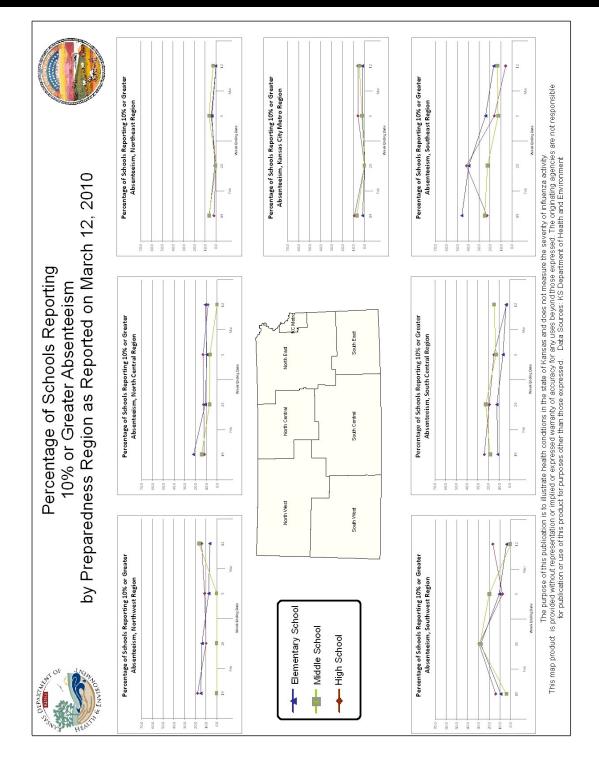




School Absenteeism (Surveillance Conducted via Health Departments) Week ending March 12, 2010*



School Absenteeism (Surveillance Conducted via Health Departments) Week ending March 12, 2010*



Percentage of Schools Reporting 10% or Greater Absenteeism by Category and County, Week ending March 12, 2010

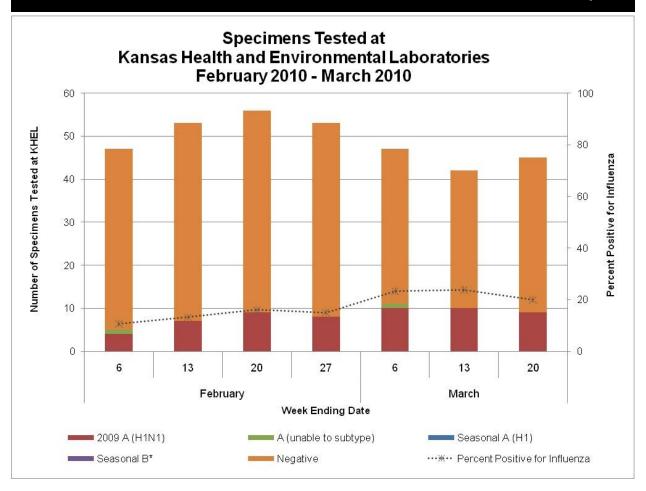
County	Elementary School	Middle School	High School
ALLEN			
ANDERSON	0%		0%
ATCHISON	0%	0%	0%
BARBER	0%	0%	0%
BARTON	0%	0%	0%
BOURBON		0%	
BROWN			
BUTLER	0%	0%	0%
CHASE			
CHAUTAUQUA	0%	0%	0%
CHEROKEE	0%	0%	100%
CHEYENNE	0%		50%
CLARK	100%		
CLAY			
CLOUD			
COFFEY			
COMANCHE	0%		0%
COWLEY			
CRAWFORD	33%	100%	0%
DECATUR			
DICKINSON			
DONIPHAN	0%	0%	
DOUGLAS	0%	0%	0%
EDWARDS			
ELK			
ELLIS	0%	0%	0%
ELLSWORTH	0%	0%	0%
FINNEY			
FORD	0%	0%	0%
FRANKLIN			
GEARY	0%		
GOVE			
GRAHAM			
GRANT	0%		
GRAY	0%		0%

County	Elementary School	Middle School	High School
GREELEY			
GREENWOOD	0%		0%
HAMILTON			
HARPER			
HARVEY			
HASKELL	0%	0%	0%
HODGEMAN	0%	0%	0%
JACKSON	0%	0%	0%
JEFFERSON	0%	0%	0%
JEWELL	0%	0%	0%
JOHNSON	0%	0%	0%
KEARNY	0%		
KINGMAN	0%		0%
KIOWA	33%	100%	50%
LABETTE	0%	0%	0%
LANE	0%	0%	0%
LEAVENWORTH	43%	67%	100%
LINCOLN	0%	0%	0%
LINN	0%	100%	0%
LOGAN	33%	0%	0%
LYON	0%	0%	0%
MARION	0%	50%	0%
MARSHALL	0%		0%
MCPHERSON	0%	25%	0%
MEADE			
MIAMI			
MITCHELL	50%		50%
MONTGOMERY	43%	0%	0%
MORRIS			
MORTON	0%	0%	67%
NEMAHA	0%	0%	0%
NEOSHO	0%		0%
NESS	0%		0%
NORTON			
OSAGE			

Percentage of Schools Reporting 10% or Greater Absenteeism by Category and County, Week ending March 12, 2010

County	Elementary School	Middle School	High School
OSBORNE	100%		0%
OTTAWA	0%	0%	0%
PAWNEE	33%	100%	0%
PHILLIPS	0%	0%	0%
POTTAWATOMIE	0%	0%	0%
PRATT			
RAWLINS			
RENO	0%	0%	0%
REPUBLIC			
RICE			
RILEY	0%	0%	0%
ROOKS	0%		0%
RUSH	100%	100%	100%
RUSSELL			
SALINE	0%	0%	0%
SCOTT			
SEDGWICK	3%	0%	0%
SEWARD			
SHAWNEE	0%	0%	0%
SHERIDAN	0%	0%	0%
SHERMAN	0%	0%	0%
SMITH			
STAFFORD	50%	50%	0%
STANTON			
STEVENS	0%		
SUMNER			
THOMAS			
TREGO	0%		0%
WABAUNSEE	0%	0%	0%
WALLACE	0%	0%	0%
WASHINGTON	0%	0%	0%
WICHITA	0%		0%
WILSON	0%	0%	0%
WOODSON	0%	0%	0%
WYANDOTTE	0%	0%	0%

Laboratory Testing (Surveillance Conducted via Kansas Health and Environmental Laboratories)



Kansas Department of Health and Environmental Laboratories October 4, 2009 — March 20, 2010

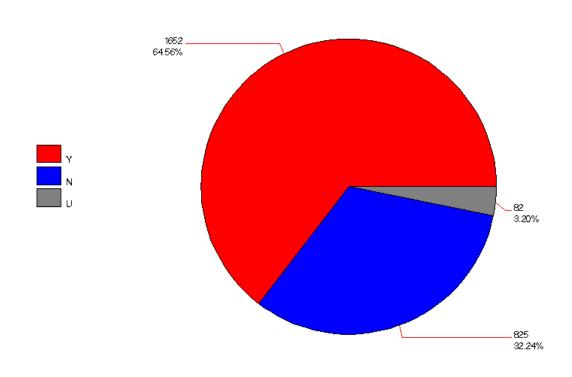
No. of specimens submitted for testing at KHEL 2,618

No. of specimens testing positive for influenza A (2009 H1N1) 955 (36%)

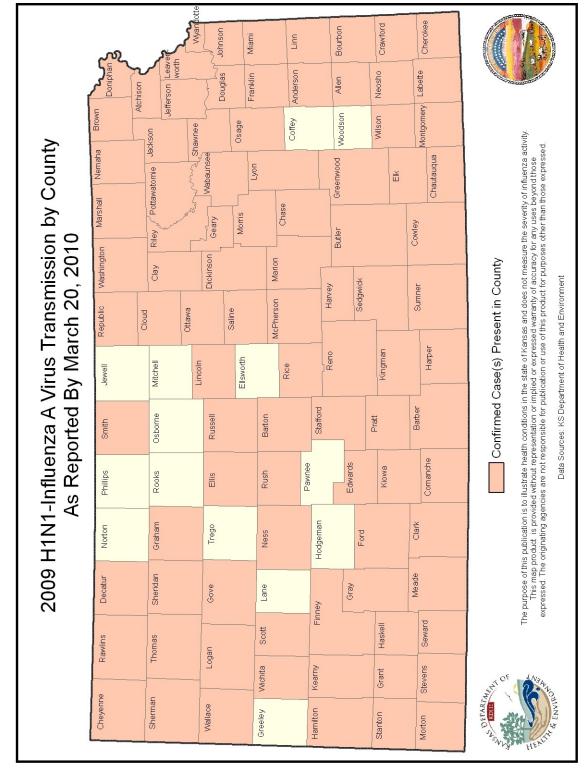
Laboratory Testing (Surveillance Conducted via Kansas Health and Environmental Laboratories)

Influenza Specimens Tested at KHEL by Hospitalization Status

October 4, 2009 - March 20, 2010 FREQUENCY of Hospitalized



Descriptive Epidemiology of KHEL-Confirmed H1N1 Cases

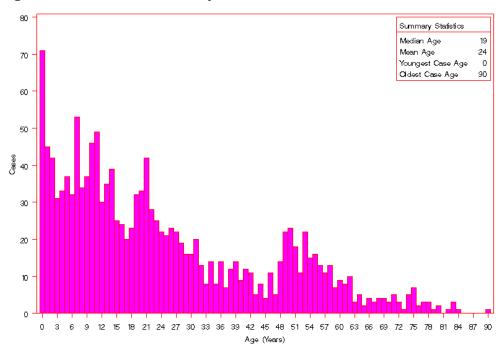


Descriptive Epidemiology of KHEL-Confirmed H1N1 Cases

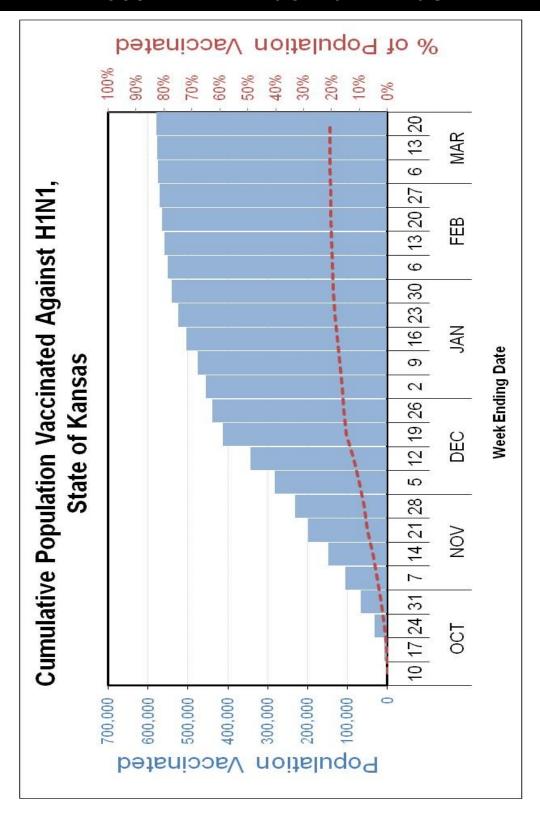
Patient Characteristics for Laboratory-Confirmed H1N1 Cases (N = 1459)

Median Age (Years)	19	
Age Range (Years)	<1 to 90	
Age Groups	Percent (%) of cases	Rate per 100,000 population
<5 Years	15	110
5 to 24 Years	46	84
25 to 49 Years	22	35
50 to 64 Years	13	36
65+ Years	4	16
Male	46	48
Female	54	56
Hispanic or Latino	17	99
Races		
White	73	42
Black	8	59
Asian/Pacific Islander	3	58
American Indian/Alaska Native	<1	18
Mixed Race	2	(unknown)
Hospitalized	49	
Died	2	

Age Distribution of Laboratory Confirmed Cases as of March 20, 2010



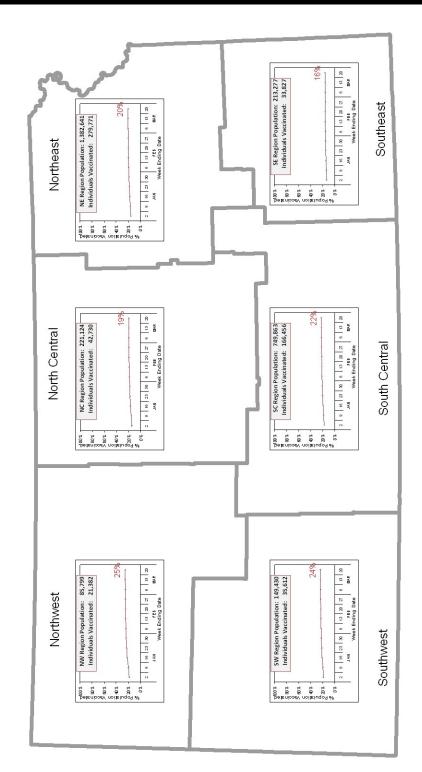
Population Vaccinated Against 2009 H1N1 Influenza A Virus



Population Vaccinated Against 2009 H1N1 Influenza A Virus



Cumulative Population Vaccinated Against H1N1, by Region and Week as Reported on March 20, 2010



The purpose of this publication is to illustrate health conditions in the state of Kansas and does not measure the seventy of influenza activity.

This map product is provided without representation or implied or expressed warranty of accuracy for any uses beyond those expressed. The originating agencies are not responsible for publication or use of this product for purposes other than those expressed.

Data Sources KS Department of Health and Environment.



Technical Notes

Outpatient Influenza-like Illness Surveillance (ILINet)

Information on patient visits to health care providers for influenza-like illness is collected through the US Outpatient Influenza-like Illness Surveillance Network (ILINet). For this system, ILI is defined as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat in the absence of a KNOWN cause other than influenza.

ILINet clinics in Kansas report the number of patients seen with influenza-like illness each week. The information reflects data collected for the week ending the previous Saturday. As of January 2, 2010, seventy sites are enrolled in ILINet in Kansas. The maps and charts on pages 6-9 show the percentage of ILI visits reported by region and by site by week ending date. Each percentage was calculated by dividing the number of patients seen with ILI at the clinic by the total number of patients seen and multiplying by 100.

Influenza-like illness data are collected from Sunday through Saturday of each week. Each participating clinic is requested to summarize the data weekly and submit the data by noon on Tuesday of the following week. The information on these charts may change each week because of data that may have been submitted after the reporting deadline.

Hospital Admissions for Pneumonia or Influenza Surveillance (EMSystems)

Hospitals throughout Kansas submit information to the Kansas Hospital Association (KHA) through EM-Systems, a secure, online reporting system. One hundred and thirty-one (131) hospitals that have access to EMSystems are included in this surveillance program. KDHE has partnered with KHA to collect aggregate information on patients hospitalized for pneumonia or influenza.

The maps and graphs on pages 10-13 show the rate of hospital admissions for pneumonia or influenza reported by region and by hospital by week ending date. Each rate was calculated by dividing the number of patients admitted to the hospital with pneumonia or influenza by bed days. The denominator bed days was calculated by multiplying the number of staffed beds by seven.

Mortality Due to Pneumonia or Influenza

The Office of Vital Statistics within the Bureau of Public Health Informatics at KDHE receives and preserves vital records for events (births, deaths, marriages, and divorces) which occur in Kansas. The mortality data on page 14 reflects the number and percentage of persons whose primary or underlying cause of death was attributed to pneumonia and / or influenza.

Self-Reported Influenza-like Illness

The Behavioral Risk Factor Surveillance System (BRFSS), which is coordinated and partially funded by the Centers for Disease Control and Prevention, is the largest continuously conducted telephone surveyin the world. It is conducted in every state, the District of Columbia, and several United States territories. The first BRFSS survey in Kansas was conducted as a point-in-time survey in 1990, and Kansas has conducted the BRFSS survey annually since 1992.

Beginning in September 2009, the BRFSS questionnaire was revised to include questions to assess influenza-like illness among adult respondents and other members of the household. The graphs on pages 15 and 16 provide the percent of adults, children, and households reporting ILI.

School Absenteeism Surveillance

Data are collected by local health departments (LHDs) during each school week. LHDs report the number of schools with 10% or greater absenteeism and the total number of schools that submit data each week. LHDs submit data to KDHE by noon on Tuesday of the following week.

Technical Notes (continued)

School Absenteeism Surveillance (continued)

LHDs report county data in three categories: elementary school (i.e. K-5), middle school (i.e., 6-8), and high school (i.e., 9-12). The designated school category is based upon the majority of grades within the school; for instance, a school consisting of grade levels K-6 would be classified as an elementary school.

Percentages of school absenteeism by county shown on pages 17-23 may be unstable and changes over time should be interpreted with caution. "No report" classification indicates the LHD failed to report any data to KDHE. "No data" classification indicates that either the school(s) did not report any data to the LHD or there are no schools in the county for the specific school category.

Laboratory Testing at Kansas Department of Health and Environmental Laboratories (KHEL) The information on pages 24-25 represents data reported to KDHE for the week ending the previous Saturday. Prior to September 1, 2009 persons with symptoms consistent with ILI were tested at KHEL. Beginning September 1, specimens were only tested if the person was hospitalized, had died and the cause of death was suspected to be influenza, or if the person was seen at an ILINet Clinic Site.

Descriptive Epidemiology for Laboratory-Confirmed H1N1 Cases at KHEL

The information on pages 26-27 represent data reported to KDHE for the week ending the previous Saturday. Only cases that were laboratory confirmed at KHEL are included.

Population Vaccinated Against H1N1 Influenza A Virus

Vaccination sites throughout Kansas submit information on the number of H1N1 vaccine doses administered each week. The charts on pages 28-29 show the cumulative number of individuals vaccinated at the end of each week in each region of the state, and the cumulative percentage of each region's population that has been immunized. The cumulative numbers and rates may be skewed slightly, as individuals are divided into regions based on the site of vaccination; these charts do not account for individuals who were vaccinated in a region other than the region in which they reside. Vaccine administration data may change each week because of data submitted after the reporting deadline or because of corrections made to previously submitted data.

Data Quality Indicators

Percentage of Sites Represented in the Current Week's Data for the Following Sections:

Outpatient Influenza-like Illness Surveillance — 73% (51 of 70 ILINet sites)

Hospital Admissions for Pneumonia or Influenza Surveillance (EMSystems) - 56% (74 of 132 hospitals)

School Absenteeism Surveillance— no surveillance for the current week

Appendix - Number and County Location of ILINet Clinic Sites

Allen	1
Barton	2
Brown	1
Butler	1
Cherokee	1
Cheyenne	1
Clark	1
Cloud	1
Cowley	1
Crawford	1
Dickinson	3
Douglas	2
Ellis	2
Finney	1
Ford	1
Franklin	1
Geary	2
Grant	2
Greenwood	1
Harvey	1
Jefferson	1
Johnson	5
Kiowa	1
Labette	1
Leavenworth	1
Linn	1
Lyon	2
McPherson	1
Meade	1
Montgomery	2
Neosho	1
Pottawatomie	1
Pratt	1
Reno	2
Riley	3
Saline	2
Sedgwick	6
Seward	2
Shawnee	
Sherman	1
Wichita	1
Wyandotte	6

Appendix - List of Hospitals Included in Hospital Surveillance Section for Current Report

ASHLAND HEALTH CENTER ATCHISON HOSPITAL CENTRAL KANSAS MEDICAL CTR GREAT BEND CHEYENNE COUNTY HOSPITAL SAINT FRANCIS CITIZENS MEDICAL CENTER COLBY CLOUD COUNTY HEALTH CENTER CONCORDIA **COFFEY COUNTY HOSPITAL BURLINGTON** COFFEYVILLE REGIONAL MEDICAL CENTER COMANCHE COUNTY HOSPITAL COLDWATER COMMUNITY MEMORIAL HC MARYSVILLE CUSHING MEMORIAL HOSPITAL EDWARDS CO. HOSP. AND HC CTR. KINSLEY **ELLINWOOD DISTRICT HOSPITAL** GEARY COMMUNITY HOSPITAL JUNCTION CITY **GOVE COUNTY MEDICAL CENTER QUINTER** GRAHAM COUNTY HOSPITAL HILL CITY **GREAT BEND REGIONAL HOSPITAL** GREENWOOD COUNTY HOSPITAL EUREKA GRISELL MEM. HOSP. DIST. NO. 1 RANSOM HARPER COUNTY HOSP DIST NO 6 ANTHONY HERINGTON MUNICIPAL HOSPITAL HILLSBORO COMMUNITY HOSPITAL HODGEMAN CO HEALTH CENTER JETMORE HORTON COMMUNITY HOSPITAL JEFFERSON CO. MEM. HOSPITAL WINCHESTER JEWELL COUNTY HOSPITAL MANKATO KIOWA COUNTY MEM. HOSPITAL GREENSBURG KIOWA DISTRICT HOSPITAL KIOWA LANE COUNTY HOSPITAL DIGHTON LAWRENCE MEMORIAL HOSPITAL LINCOLN COUNTY HOSPITAL LOGAN COUNTY HOSPITAL OAKLEY MEDICINE LODGE MEMORIAL HOSPITAL MEMORIAL HOSPITAL ABILENE MIAMI COUNTY MEDICAL CENTER PAOLA MINNEOLA DISTRICT HOSPITAL MITCHELL COUNTY HOSPITAL BELOIT MT. CARMEL REG MEDICAL CTR PITTSBURG

NEMAHA VALLEY COMM. HOSPITAL SENECA

NEOSHO MEMORIAL RMC CHANUTE NESS COUNTY HOSPITAL DIST. NO. 2 NINNESCAH VALLEY HEALTH SYS. KINGMAN **OLATHE MEDICAL CENTER** OSBORNE COUNTY MEMORIAL HOSPITAL OSWEGO COMMUNITY HOSPITAL OTTAWA COUNTY HEALTH CENTER MINNEAPOLIS OVERLAND PARK REGIONAL MEDICAL CTR PHILLIPS COUNTY HOSPITAL PHILLIPSBURG RANSOM MEMORIAL HOSPITAL OTTAWA RAWLINS COUNTY HEALTH CENTER ATWOOD REPUBLIC COUNTY HOSPITAL BELLEVILLE ROBERT J. DOLE VA MEDICAL CTR WICHITA ROOKS COUNTY HEALTH CENTER PLAINVILLE RUSH COUNTY MEMORIAL HOSPITAL LACROSSE SAINT LUKE'S SOUTH HOSPITAL SALINA REGIONAL HEALTH CENTER SATANTA DISTRICT HOSPITAL AND LTCU SCOTT COUNTY HOSPITAL SEDAN CITY HOSPITAL SHAWNEE MISSION MEDICAL CENTER SHERIDAN COUNTY HEALTH COMPLEX HOXIE SMITH COUNTY MEMORIAL HOSPITAL SOUTH CENTRAL KANSAS RMC ARKANSAS CITY SOUTHWEST MEDICAL CENTER LIBERAL ST. CATHERINE HOSPITAL GARDEN CITY ST. FRANCIS HEALTH CENTER TOPEKA ST. LUKE HOSPITAL AND LIVING CTR MARION SUSAN B. ALLEN MEM. HOSPITAL EL DORADO UNIVERSITY OF KANSAS HOSPITAL VIA CHRISTI REGIONAL MED CTR WICHITA WAMEGO CITY HOSPITAL WESLEY MEDICAL CENTER WICHITA WICHITA COUNTY HEALTH CENTER LEOTI WILLIAM NEWTON HOSPITAL WINFIELD